POCA
Read Me File

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I POCA System Overview

In 2002 the Food and Drug Administration's (FDA's) Division of Medication Error Prevention and Analysis (DMEPA) within the Center for Drug Evaluation and Research (CDER), worked with academics in the fields of computational linguistics and with an outside contractor to develop a computer program called the Phonetic Orthographic Computer Analysis (POCA) software.   POCA is used as a tool in the drug name safety evaluation process. Using an advanced algorithm, POCA compares proposed proprietary drug names with currently marketed proprietary drug names and provides orthographic and phonetic similarity scores showing how similar names are from a look-alike and sound-alike perspective.

The program can compare a proprietary drug name to other proprietary drug names found in four data sources, Drugs at FDA, RxNorm, Suffixes in proper name of biological products, and United States Adopted Names located within the POCA software. The data sources included are pipe (|) delimited ASCII files in a specific format and are loadable into the database from the upload features included in the web application interface. It was originally developed using Microsoft .Net Framework 1.1 and the Oracle 9i Database. The initial one-time public release of POCA was done via CD and was not compatible with more current operating systems, making it difficult for industry to upload into their computer systems.

To address this problem, POCA will now be available on the FDA internet with upgraded Microsoft .Net Framework 4.0 and Oracle 12c Database software. This FDA internet public release of the Phonetic Orthographic Computer Analysis (POCA) software contains both a compiled version of the POCA application and the source code. These files have been tested and installed on a number of computers; however the Agency is not able to provide technical support for the installation or operation of this program. POCA can be run on personal computers or on a server.

To run this program on a large server for multiple users no changes would be needed in the source code. It is recommended that installing POCA on a server be done by experienced System Administrators and Oracle DBAs.

There is no scope to create additional CDs in the future. It is the responsibility of the users to make any changes or modification of the software in the internet public version if needed
(http://wcms.fda.gov/FDAgov/Drugs/ResourcesForYou/Industry/ucm400127.htm?SSContributor=true).

II Installation Overview

Prior to installing the POCA Microsoft .Net Framework 4.0, Microsoft Internet Information Services (IIS) and ORACLE 12c Database software must be installed.   Using the supplied "POCA Installation Guide" the POCA database can be created. Then the POCA web application files will be copied from the supplied folder to the computer's hard disk and the web server will be configured.

Once the application is up and running, instructions to use the application can be found in the HelpDoc.pdf file on the supplied directory. This file is also available from the "Help" link in the application.

III Folders and Files available on the internet site at FDA

POCA_DB_Install Folder

This contains Upgrade scripts and an POCA database backup (.dmp) file that will be used to create POCA in Oracle database as an import data and PL/SQL routines into the database.

POCA_Datasources Folder (inside the POCA_DB_Install folder)

This contains a single ascii file in a specific file format. Files in this specific format can be used as data sources for POCA. A description of this format is supplied as a spreadsheet called data_source_template.xls. Please note that POCA data sources must be in the ascii specific pipe delimited format. POCA does not directly accept spreadsheet data to upload into the database.

POCA Installation Guide.doc

This document provides instruction for installing POCA database and the application.

Poca_Published_Files Folder

This folder contains the compiled version of the POCA application ready to run on a Windows system.

Poca_Source_Code Folder

This folder contains the source codes for the POCA application for those who want to investigate the algorithms and/or want to change them.

Technical Information Folder

Contains the following files:

POCA ER diagram.pdf

This Entity Relationship (ER) diagram is provided as a reference so users can understand how the tables are related to each other and to get a general feel for the size of the system.

FDA POCA TECHNICAL USERS GUIDE

This might be useful to a programmer who wants to modify the POCA system.

POCA_User_Guide.pdf

This is the help file used in the installed product.   This provides what are the features available in the POCA system.

ODAC folder

This folder contains different versions of the Oracle.DataAccess.dll file that you may need to use during installation (see the installation guide).